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DEC 14 2006

Docket No.: 0941-0761P

Application No. 10/600,619  
Amendment dated December 14, 2006  
After Final Office Action of September 14, 2006

REMARKS

Claims 1-21 remain present in this application.

Claims 1, 13 and 19 have been amended. Reconsideration of the application, as amended, is respectfully requested.

Amendments to the Claims

Claims 1, 13, and 19 to include the limitation "proton exchange organic membrane consists of an organic component". Support for this amendment can be found on page 10, lines 5-8, and page 17, lines 21-26 of the originally filed specification. It is therefore respectfully submitted that no new matter has been added.

Rejection under 35 USC 103

Claims 1-4, and 6-21 stand rejected under 35 USC 103 as being unpatentable over Murphy et al., U.S. Patent 6,059,943. This rejection is respectfully traversed.

Claim 5 stands rejected under 35 USC 103 as being unpatentable over Murphy et al. in view of Asukable et al., U.S. Publication 2001/0026893. This rejection is respectfully traversed.

Independent claim 1 recites a layered proton exchange membrane, comprising an organic/inorganic composite membrane, comprising inorganic proton conductor and organic base polymer, and at least one proton exchange organic membrane consisting of an organic component.

Independent claim 13 recites a method for preparing a layered proton exchange membrane, comprising (a) forming an organic/inorganic composite membrane by doping

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inorganic proton conductor in organic base polymer; and (b) combining the organic/inorganic complex membrane and a proton exchange organic membrane consisting of an organic component to form a layered proton exchange membrane.

Independent claim 19 recites a direct liquid-feed methanol fuel cell, comprising a cathode; an anode; and a layered proton exchange membrane, formed by lamination of an organic/inorganic composite membrane with at least one proton exchange organic membrane; wherein the organic/inorganic composite membrane comprises organic base polymer and inorganic proton conductor; and the proton exchange organic membrane consists of an organic component.

In independent claims 1, 13 and 19, the layered proton exchange membrane comprises at least one proton exchange organic membrane consisting of an organic component. The Examiner's attention is also drawn to page 10, lines 5-8, and page 17, lines 21-26 of the originally filed specification.

In Office Action, the Examiner acknowledges that Murphy teaches only one composite membrane layer, and suggests restricting the composition of the second membrane (proton exchange organic membrane) to only an organic polymer. Accordingly, the proton exchange organic membrane of independent claims 1, 13, and 19 is limited to consisting of an organic component, in accordance with the Examiner's notation.

Murphy et al. teaches only a single-layered composite membrane, but fails to teach or suggest a layered proton exchange membrane formed by lamination of an organic/inorganic composite membrane with at least one proton exchange organic membrane consisting of an organic component.

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In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art utilized by the Examiner fails to teach or suggest the membrane, method and fuel cell of independent claims 1, 13 and 19, as well as their dependent claims. Accordingly, reconsideration and withdrawal of the 35 USC 103 rejections are respectfully requested.

Conclusion

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Because the additional prior art cited by the Examiner has been included merely to show the state of the prior art and has not been utilized to reject the claims, no further comments concerning these documents are considered necessary at this time.

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: December 14, 2006

Respectfully submitted,

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